JAN 2 0 2012

T-453 P0002/0014 F-649



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INTELLECTUAL PROPERTY DIVISION
TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.
NO. 8, LI-HSIN RD. 6
SCIENCE-BASED INDUSTRIAL PARK
HSIN-CHU 300-7-7 TW TAIWAN

MAILED

NOV 212011

OFFICE OF PETITIONS

Patent No. 6,960,512 Application No. 10/602,241 Filed: June 24, 2003

Issued: November 1, 2005

Attorney Docket No. TSM02-1262

ON PETITION

This is a decision on the petition under 37 CFR 1.378(c), filed October 31, 2011, to accept the delayed payment of a maintenance fee for the above-identified patent.

The petition is **DISMISSED**.

If reconsideration of this decision is desired, a petition for reconsideration under 37 CFR 1.378(e) must be filed within TWO (2) MONTHS from the mail date of this decision. No extension of this two-month time limit can be granted under 37 CFR 1.136(a) or (b). This is not final agency action within the meaning of 5 U.S.C. § 704.

A petition to accept the unintentionally delayed payment of a maintenance fee under 35 U.S.C. § 41(c) and 37 CFR 1.378(c) must be accompanied by: (1) a statement that the delay was unintentional; (2) payment of the appropriate maintenance fee, unless previously submitted; (3) payment of the surcharge set forth in 37 CFR 1.20(i)(2). This petition lacks none of the items listed above.

However, it appears that the instant petition is on the behalf of the assignee, and as such, does not comply with 37 CFR 3.73(b). 37 CFR 3.73(b) provides that: (1) when an assignee seeks to take action in a matter before the Office, the assignee must establish its ownership of the property to the satisfaction of the Commissioner; (2) ownership is established by submitting to the Office, in the Office file related to the matter in which action is sought to be taken, documentary evidence of a chain of title from the original owner to the assignee (e.g., copy of an executed assignment submitted for recording) or by specifying (e.g., reel and frame number) where such evidence is recorded in the Office; (3) the submission establishing ownership must be signed by a party authorized to act on behalf of the assignee; and (4) documents submitted to establish ownership may be required to be recorded as a condition to permitting the assignee to take action in a matter pending before the Office. A blank 37 CFR 3.73(b) statement is enclosed.

Further, although the petition form submitted was for a petition under 37 CFR 1.378(b), to accept payment of the maintenance fee based on UNAVOIDABLE delay, petitioner submitted the

Patent No. 6,960,512

JAN 2 0 2012

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Page 2

\$1640.00 UNINTENTIONAL delay surcharge. The petition has been treated as a petition under 37 CFR 1.378(c) to accept an unintentionally delayed payment of maintenance fee. If this is in error, please notify the Office to treat the petition under 37 CFR 1.378(b) to accept an unavoidably delayed payment of maintenance fee.

Any petition for reconsideration of this decision must be accompanied by the petition fee of \$400.00 as set forth in 37 CFR 1.17(h). The petition for reconsideration must include the lacking item(s) noted above, since, after a decision on the petition for reconsideration, no further reconsideration or review of the matter will be undertaken by the Commissioner.

Petitioner should note that if this petition is not renewed, or if renewed and not granted, then the maintenance fees and post expiration surcharge are refundable. Petitioner may request a refund of the fees submitted on October 31, 2011. Please send all requests for refunds to the following

Mail Stop 16

Director of the US Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

A copy of this decision should accompany petitioner's request.

Further correspondence with respect to this matter should be addressed as follows:

By mail:

Mail Stop PETITIONS Commissioner for Patents

Post Office Box 1450 Alexandria, VA 22313-1450

By hand:

Customer Window located at:

U.S. Patent and Trademark Office

Customer Service Window Randolph Building

401 Dulany Street Alexandria, VA 22314

By fax:

(571) 273-8300

ATTN: Office of Petitions

Any questions concerning this matter may be directed to the undersigned at (571) 272-3206.

/Liana Walsh/ Liana Walsh Petitions Examiner Office of Petitions

Enclosure:

PTO/SB/96

RECEIVED CENTRAL FAX CENTER JAN 2 0 2012

		STATEMENT UNDE	2 37 CFR 3.7	<u>3(b)</u>
Applicant/Pa	atent Owner:			
Application I			Filed/lasue [Pate:
Titled:				
				<i>(</i> 3.1)
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Name of Apply	y:00)	(Type or	Accignos, e.g., cor	pocation, partnership, university, government egency, etc.
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3. 🔲 (the assignee of an undiv	land interest in the entirety of (a o	omplete assign	ment from one of the joint inventors was made)
ne patent a	pplication/patent identific	ed above, by virtue of either.		•
	An accomment from the	Inventoric) of the nated anolication	on/ostent ident/	field above. The sasignment was recorded in
·	the United States Patent	and Trademark Office at Reel		, Frame, or for which a
 SR	copy therefore is attache	rd.		
	A chein of title from the li	nventor(s), of the patent application	n/patent Identif	fled above, to the current assignme as follows:
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•	The decimen	t was recorded in the United State	e Patent and Ti	rademark Office at
		•		or for which is copy thereof is attached.
	2. From:			
		t was recorded in the United State		
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	3. From:		To:	
	The documen	t was recorded in the United State	s Patent and T	rademark Office at
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As re	equired by 37 CFR 3.73	(b)(3)(i), the documentary evident	e of the chain	of title from the original owner to the assignee wa
dt da		mitted for recordation pursuant to		
		., a true copy of the original assig t 3, to record the assignment in th		int(s)) must be submitted to Assignment Division a USPTO, See MPEP 302.081
		plied below) is authorized to sot o		•
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Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection The Privacy Act of 1974 (P.L. 93-575) requires that you be given certain information in consecution with your submission of the attached form related to a patient application or patient. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patient and Trademark Office to process and/or examine your submission related to a patient application or patient, if you do not furnish the requested information, the U.S. Patient and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abstraction processing the application or patient in the processing of the application of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (6 U.S.C. 552). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.

 A record from this system of records may be disclosed, as a routine Use, in the course of precenting evidence to a court, magistrate, or administrative tribunal, including disclosures to
- represent coursel in the course of settlement negotiations.

 A record in this system of teodric may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pretains, when the individual has requested assistance from the Member with respect to the subject matter of the

- Individual has requested assistance from the Member with respect to the subject matter of the record. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the Information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 6 U.S.C. 5528(m).

 A record related to an international Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to nother feederal agency for purposes of National Security review (36 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

 A record from this system of records may be disclosed, as a routine use, to another feederal agency for purposes of National Security review (36 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

 A record from this system of records may be disclosed, as a routine use, to include the Administrator, General Services, or his/har designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2604 and 2606. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (x.c. GSA or Commerce) directive, Such disclosure shall not be used to make determinations about individuals.

 A record from this system of records may be disclosed, as a noutine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent purguant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which application is reterenced by either a published application, an application open to public inspection or an international publica referenced by either a published application, an application open to public inspection or an
- issued patent.

 A record from this system of records may be disclosed, as a routine use, to a Federal, State. or local law enforcement agency, if the USPTO becomes aware of a violation or potent violation of law or regulation.

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T-453 P0006/0014 F-649

U.S.S.N. 10/602,241

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Shui-Ming Cheng, et al

Group Art Unit:

Serial No.: 10/602,241

Patent No.: 6,960,512

Examiner: Walter L, Lindsay, Jr.

Filed: 06/24/2003

For: Method For Manufacturing A Semiconductor Device Having An Improved Disposable Spacer

Attorney Docket No.: 2002-1262

CERTIFICATE OF MAILING OR PACSIMILE TRANSMISSION

! hereby certified that this comespondence to (1) 🖾 being faceimited to the United States Patent Office, Office of Potitions at tax number (571) 273-8300 on January 20, 2012.

Mandy Chlen-Yu Llu Printed Name

January 20, 2012 Date

Please forward all correspondence to

Mandy Chien-Yu Liu Talwan Semiconductor Manufacturing Company, Ltd. No. B. Li-Hsin Road 6 Science Based industrial Perk Hain-Chu, Taiwan, R.O.C.

Petition for Reconsideration under 37 CFR 1.17(f)

Office of Petitions US Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In Response to an Office Action dated 11/21/2011 dismissing a petition under 37 CFR 1.378 (c) filed on 10/31/11, the petitioner hereby respectfully request a reconsideration to accept delayed payment of a maintenance fee for the above-identified patent.

1

01/24/2012 DALLEN 00000014 6960512 01 FC:1462

400.00 OP

U.S.S.N. 10/602,241

The petitioner further respectfully submit a Statement under 37 CFR 3.73 (b) establishing its ownership of the property.

Respectfully submitted,

Mandy Chien-Yu Liu

Administrator of IP Division

Taiwan Semiconductor Manufacturing Company, Ltd.

Patent Assignment Abstract of Title

NOTE:Results display only for issued patents and published applications. For pending or abandoned applications please consult USPTO staff.

Total Assignments: 1

Patent #: 6950512

Issue Dt: 11/01/2005

Application #: 10602241

Filing Dt: 06/24/2003

Publication #: US20040266122

Pub Dt: 12/30/2004

Inventors: Shui-Ming Cheng, Ka-Hing Fung, Yin-Pin Wang, Kuan-Lun Cheng, Huan-Tsung Huang

THE: METHOD FOR MANUFACTURING A SEMICONDUCTOR DEVICE HAVING AN IMPROVED DISPOSABLE SPACER

Assignment: 1

Reel/Frame: 014229 / 0438

Recorded: 06/24/2003

Pages: 3

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS). Assignors: CHENG, SHUL-MING

FUNG. KA-HING

WANG. W.P.

CHENG, K.L. **HUANG, HUAN-TSUNG** Exec Dt: 06/19/2003

Exec Dt: 06/23/2003

Exec Dt: 06/23/2003 Exec Dt: 06/19/2003

Exec Dt: 06/23/2003

Assignee: TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.

NO. 6, LI-HSIN RD. 6

SCIENCE-BASED INDUSTRIAL PARK

HSIN-CHU, TAIWAN 300-77

Correspondent: SLATER & MATSIL, LL.P.

STEVEN H. SLATER

17950 PRESTON RD. STE. 1000

DALLAS, TX 75252-5793

Search Results as of: 0,1/17/2012 09 44 AM

If you have any comments of questions concerning the data displayed, contact PRD / Assignments at 571-272-3350 v.2.2

Web interface last modified: Dec 1, 2011

115006960512B2

(12) United States Patent Cheng et al.

(10) Patent No.:

US 6,960,512 B2

(45) Date of Patent:

Nov. 1, 2005

(54) METHOD FOR MANUFACTURING A SEMICONDUCTOR DEVICE HAVING AN IMPROVED DISPOSABLE SPACER

(75) Inventors: Shui-Ming Cheng, Hsin-Chu (TW);
Ka-Hing Fung, Hsin-Chu (TW);
Yin-Fin Wang, Kaohsiang (TW);
Kuan-Lun Cheng, Hsin-Chu (TW);
Huan-Tsang Huang, Hsin-Chu (TW)

(73) Assignee: Talwain Semiconductor

Manufacturing Company, Ltd., Hsin-Chr (TW)

(*) Notice:

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 60 days.

(21) Appl. No.: 10/602,241

(22) Filed: Jun. 24, 2003

(65) Prior Publication Data

US 2004/0266122 A1 Dec. 30, 2004

(56) References Cited U.S. PATENT DOCUMENTS

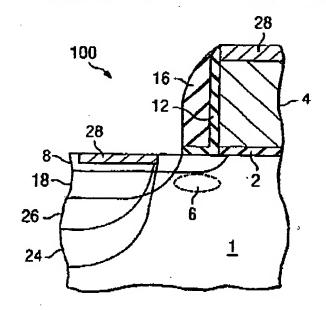
Primary Examiner - Walter L. Lindsay, Jr.

(74) Attorney, Agent, or Firm-Slatet & Massil, L.L.P.

57) ABSTRACT

The present invention provides methods for manufacturing semiconductor devices. In one embodiment, the method includes forming a gate exide over a substrate and a gate electrode over the gate exide. The method also includes implanting impurities into the substrate using the gate electrode as an implant mask to form lightly-doped regions in the substrate. The method further includes forming a first spacer adjacent the gate electrode, and implanting impurities into the substrate and through a portion of the lightly-doped regions using the first spacer as an implant mask to form deep source/drain regions in the substrate. The method still further includes forming a second spacer adjacent the first spacer, implanting impurities into the substrate using the second spacer as an implant mask to form a graded source/drain region in the substrate, and removing the second spacer. Also disclosed is a semiconductor device constructed using the techniques disclosed herein.

21 Claims, 2 Drawing Sheets



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07-08-2003

Form PTD-1595 (Rev., 10/02) OMB No. 0851-0027 (exp. 8/30/2005)			U.S. DEPARTMENT OF COMMERC U.S. Patent and Trademark Offi			
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Name of conveying party(ies): 6			ess of receiving party(les)			
Shui-Ming Cheng		Name: <u>Talwan</u>	Semiconductor Manufacturing Comp			
Ka-Hing Fung W.P. Wang K.L. Cheng			ss:			
Huan-Tsung Huang	ĺ	Street Addres	8: No. 6, Li-Hsin Rd. 6			
		Science-Based	Industrial Park			
Additional name(s) of conveying party(lest) effective	ed7 Yes X No	City: <u>Haln-Chu</u>				
3. Nature of conveyance;		State: <u>Talwan</u>	Zip: <u>300-77</u>			
X Assignment	Merger					
Security Agreement	_					
Other						
Execution Date: 6/19/2003 & 6/23/20	03	Additional name(s) &	address(es) attached? Yes X			
A. Patent Application No.(s)		B. Patent No.(application is: 6/19/2003 & 6/23/2003 s) X No			
 Name and address of party to who concerning document should be n 	om correspondence		f applications and patents involved:			
Name: Steven H. Slater		7. Total fee (37 C	FR 3.41) . 40.00			
Stater & Matsil, L.L.P. Street Address:17950 Preston Rd		Enclosed				
Suite 1900		X Authorize	ed to be charged to deposit account			
City: Dallas State: Texas	Zip: <u>75252-5793</u>	8. Deposit accoun	nt number:			
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Brian A Carlson Reg. No. 37.7 Name of Person Signing	Signatu		Date			
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PATENT

REEL: 014229 FRAME: 0438



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Assignments on the Web > Patent Query

Patent Assignment Details

NOTE:Results display only for Issued patents and published applications. For pending or abandoned applications please consult USPTO staff.

Reel/Frame: 93422949438

Pages: 3

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Total properties: 1

Patent #: 5950512 Publication #: <u>US2C040266122</u>

Issue Dt: 11/01/2005 Pub Dti 12/30/2004 Application #: 10502241

Piling Dt: 06/24/2003

THE: METHOD FOR MANUFACTURING A SEMICORDUCTOR DEVICE HAVING AN IMPROVED DISPOSABLE SPACER

Assignors

1 CHENG SHILLMING

2 FUNG, KA-HING

9 WANG, W.P.

HUANG, HUAN-TSUNG

Exec Dts 05/19/2003 EXEC PC 00/23/2003

Exec Dt: 06/23/2003

Exec Dt: 06/19/2003

Exec Dt: 06/23/2003

Assignee

1 TADWAYL SEMICONDUCTOR MANUFACTURING COMPANY, LTD.

NO. 6, LI-MSIN RD. 6 SCIENCE-BASED INDUSTRIAL PARK HSIN-CHU, TAIWAN 900-77

Correspondence name and address

SLATER & MATSIL, L.L.P. STEVEN H. SLATER 17950 PRESTON RD. STE. 1000

DALLAS, TX 75252-5793

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With Interface lost modified: Dec 1, 8011 v.d.5

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STATEMENT UNDER 37 CFR 3.73(b)									
Applicant/Patent Owner: Shut-Ming Cheng, Ke-Hing Fung, Yin-Pen Wang, Kuan-Lun Cheng, Huan-Tsung Huang									
Application No./Patent No.: 10/802,241 Filed/lesue Date: 06/24/	/2003								
Titled: Method For Manufacturing A Semiconductor Device Having An Improved Disposable Spacer									
Tahwan Semiconductor Manufacturing Company Corporation									
(Nome of Assignme) (Type of Assignme).	ehlp, university, generalization agency, etc.								
slates that it is:									
1. S the assignee of the entire right, title, and interest in;									
2. an assignate of face than the entire right, title, and interest in (The extent (by percentage) of its ownership interest is									
3. The assignee of an undivided interest in the entirety of (a complete assignment from an	e of the joint invantors was made)								
the patent application/patent identified above, by virtue of either:									
A. An exeignment from the Inventor(s) of the extent application/patent identified above. I the United States Patent and Trademark Office at Read 014229 , Frame 0 copy therefore is attached.	The essignment was reported in 1438, or for which a								
B. A chain of title from the inventor(s), of the patent application/patent identified above. to	the current assignee as follows:								
1. From: To:									
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2. From: To:									
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3. From:									
The document was recorded in the United States Patent and Tredemark Off	lico at								
Reel, Frame or for white	t a copy thereof is attached.								
Additional documents in the chain of this are tated on a supplemental sheet(s).									
As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the or concurrently is being, submitted for recordation pursuent to 37 CFR 3.11.									
[NOTE: A caparate copy (i.e., a true copy of the priginal assignment document(s)) must be accordance with 37 CFR Part 3, to record the easignment in the records of the USPTO. Sa	e extentited to Assignment Division in <u>A MPEP 302.08</u>]								
The understance (whose title is supplied below) is authorized to act on behalf of the adolgate.	Inches 00 0047								
- Albania	January 20, 2012								
Mandy Chien-Yu Liu	Administrator of IP Division								
Printed or Typed Neme	Title								
This contaction of information is required by 87 CFR 9.73(b). The information to required to enterin or receive a benefit by the pa									

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